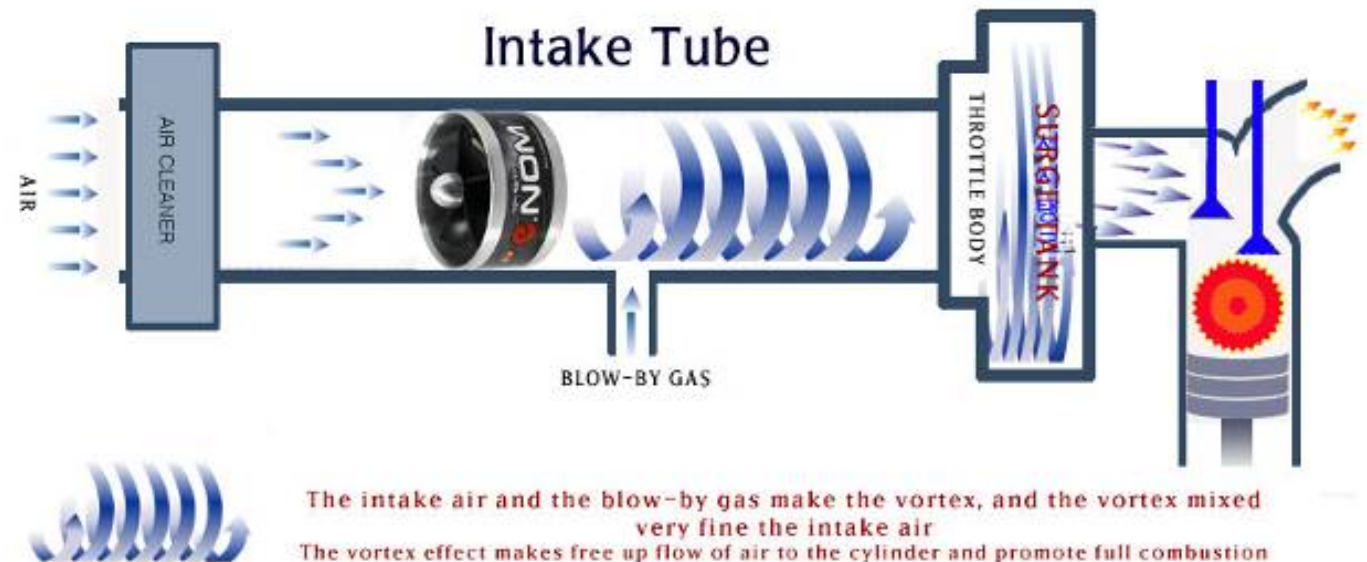




e-nom is a non motorized air intake vortex generator. It is the equipment that improves the condition of the vehicle by evenly mixing the fuel and air for the most optimum mixture and promoting and inducing complete combustion of fuel molecules within the cylinder by enhancing combustion efficiency.

When mixing ratio of fuel and intake gas (blow-by gas + air) is high, combustion efficiency is enhanced and fumes and residual oxygen content is detected in low amounts in the exhaust gas. This leads to optimum level of fuel injection and improves output due to increased combustion efficiency and can even save the fuel consumption and improve the fuel efficiency .





- Fluid velocity per sectional area of fluid increases up to the inner surface of the exhaust tube and at the same time air vortex proportionally to the rotation speed and therefore, it mixes well with the injected fuel and flows into the cylinder.
- When gas with high mixing rate of air and blow by gas flows into the cylinder and the flow of the gas is made smooth, combustion efficiency in the combustion process within the cylinder becomes enhanced and promotes complete combustion. This results in decreased amount of fumes and residual oxygen content in the exhaust and through optimum fuel injection, not only will it contribute significantly to preventing air pollution, it will also cut fuel expense.

- When e-nom is installed within the exhaust tube, due to fine fluid resistance, small fluctuation in the amount of air occurs. However, due to granule of fluid as a result of the impeller and activated inflow of fluids, resistance is lowered.
- In order to decrease resistance of fluid, the angle of incidence of housing and impeller was designed and manufactured to be light weight.
- For durability, measured ultra precise bearing load, and selected engineering plastic that can withstand abrasions, friction, and internal shock.



The best Efficiency realization and Effective embodiment



Output Increase

Because it supplies vortex air to the engine and enhances combustion rate for complete combustion of air and fuel mixture, power output is increased and can generate significant power with high compression ratio.



Fume Reduction

When combustion rate is high, substances that are released as a product of incomplete combustion are decreased, therefore, exhaust gas and fumes are naturally minimized and can enhance exhaust efficiency by removing carbon particles and pollutants from the exhaust pipe.



Fuel Cost Improvement

With rapid engine response, fuel consumption is reduced at low velocities, and because response will improve as power output increases, the driver does not need to step on the accelerator as much and because of the excellent cruising that results from elasticity, fuel costs are improved.



Noise Reduction

When driving the vehicle, because air intake is vortex, combustion rate of the fuel is improved without engine strain and result in smooth reaction.

- Vortex formation from e-nom promotes and induces optimum combustion efficiency which complements and improves the vehicle.

e-nom helps drivers correct their driving habits by enhancing acceleration and deceleration.
 ⇒ Enhancement of combustion efficiency equals increase in power therefore the accelerator does not need to be pushed far.

After installation: The accelerator became lighter.

Accelerates sufficiently even when the accelerator is not deeply pushed.

Point of braking had to be extended and sudden braking increased.

Acceleration and cruising improved.

These experiences can be felt immediately which causes the driver to change driving habits.

The best performance of the vehicle and fuel cost reduction can be enjoyed.

The effects are enhanced even more in vehicles with older year type.




Vortex
Formation
Simulation
Video



Line up by products size – total of 17 types

12 types for passenger, SUV and lorry vehicles 2.5 tons or less : 48φ, 50φ, 55φ, 58φ, 62φ, 64φ, 67φ, 70φ, 74φ, 76φ, 83φ, 88φ

5 types for large trailer vehicles over 2.5 tons : 90φ, 96φ, 123φ, 128φ, 136φ

 Product Installation (* Caution during installation)							
■ Hyun Dai		■ Hyun Dai		■ Kia		■ GM Deawoo	
Car Name	Size	Car Name	Size	Car Name	Size	Car Name	Size
Getz	62	Santafe(Diesel)	62	Morning	48	Matiz, II	48
Atoz	48	Santafe(LPG)	70	Picanto	64	Caros	64
Verna	58	Santafe CM	67	Serato	64	Forena	62
New Verna	55	Terracan	64	Magentics	64	Megnes	62
Accent	55	Traget XG LPG	64	Carens		Reganza	64
New Accent	58	Traget XG Diesel	50	Credos	58		58
Elantra	64	Tucson	67	Pride	64	Rezo	64
Metrix	58	Coupe	70	Rio	62	Tosca	64
		Grace	62			Captiva	64
New Elantra	64	Santamo	70	Carnival	58		
HD	62	H-1 CRDI	62	New Carens	64	■ Ssangyong	
Sonata 1	70	Veracruz	64			Mosso	62
Sonata 2	62	New Grandeur	70	Sportage	67	New Korando	64
EF Sonata	64	Grandeur XG	83				58
NF Sonata	67	Azera	88	■ Samsung		Rexton	50
Tuscani	64			SM3	58	Action	58
Centennial	74			SM5 /(525)	64	Kyron	58
				SM7	74		

Line up by products size – total of 17 types

12 types for passenger, SUV and lorry vehicles 2.5 tons or less : $48\phi, 50\phi, 55\phi, 58\phi, 62\phi, 64\phi, 67\phi, 70\phi, 74\phi, 76\phi, 83\phi, 88\phi$

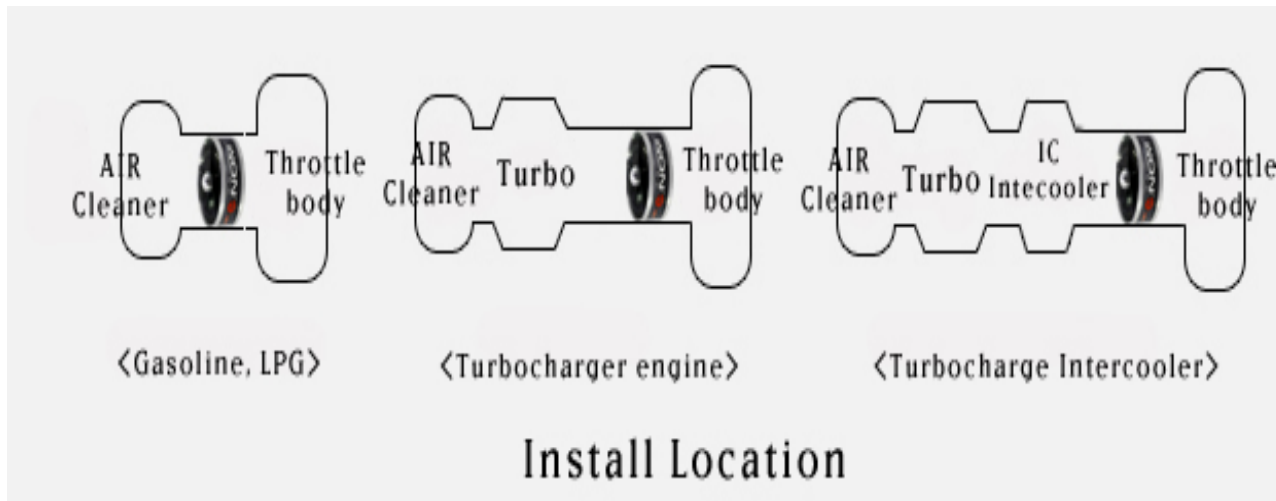
5 types for large freight vehicles over 2.5 tons : $90\phi, 96\phi, 123\phi, 128\phi, 136\phi$

Our products can install every car



- 1, Check your car's air intake inner diameter
- 2, If the intake diameter is $\phi 55$, then the e-nom size is $\phi 55$.

This E-NOM can adjust every type of engine, And every type of vehicles.



Caution during installation

Install in the direction of the engine (throttle body) and fix the external girth with a clamp.

- The arrow marked on the product must be facing toward the engine (throttle body) for proper installation.
- When installed in incorrect direction, the effects of the product are significantly decreased.
- For point of installation, if possible, avoid the curved region of the intake line and install in a straight, curve free area.
- For most optimum results, it is recommended that it be installed near the throttle body if possible but caution must be taken so the blow by gas line is not interrupted.

Installation Method



01

Open the hood and find the intake tube

※ Make the ECU/TCU at initial state



03

Check the inside of the intake tube, is there any foreign material or not. If there are, remover that.



09

Unbind the clamp from the intake tube and take off the tube

Caution the blow-gas line



04

Please check the install direction and push the E-NOM

Do not push the products compulsorily Use the lubricant oil. (WD 40)

Do not give the shock to the impeller and axis



레조

install location



The portion which is visible in the picture is the entrance of the throttle valve



← mark point is Blow-by gas hole, so pay attention not to close the hole by the E-NOM housing

Unbind the clamp from the smsmark and take off the intake tube



← Turning and pushing the products like the picture.

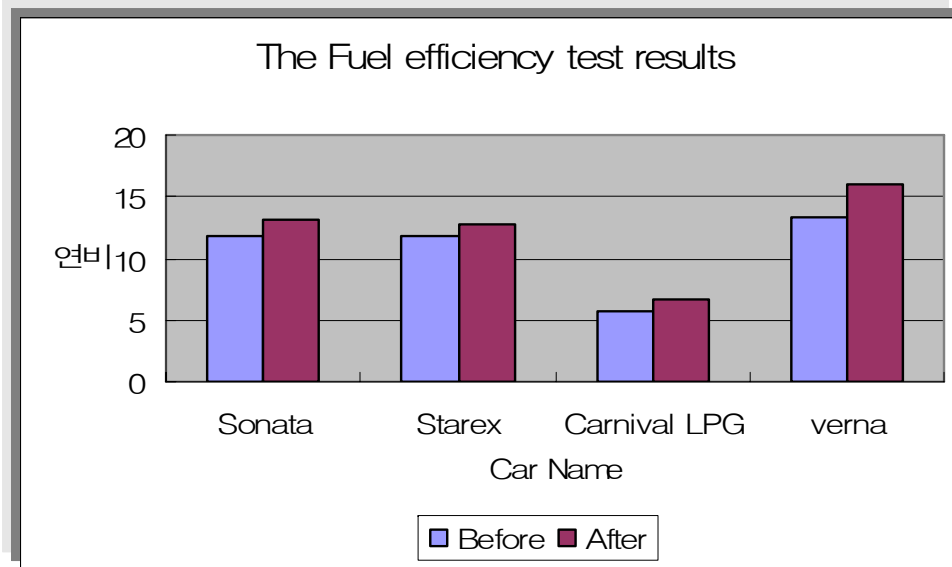
Please use the lubricant oil for easy insert.

If the E-NOM is located right position, then the hose clamp fixes the out site of intake tube at the E-NOM position

If it's hard to Insert the E-NOM to the tube, then use a bottle like beside picture. (Don't give a shock to the empeller and the axis)



△ Fuel efficiency test results



Car Name	Before	After	Increase rate
EF Sonata	11.89 km/l	13.11 km/l	10.26 %
Starex	11.82 km/l	12.82 km/l	8.46 %
Carnival LPG	5.62 km/l	6.73 km/l	19.75 %
Verna	13.43 km/l	16.03 km/l	19.36 %

△ University lab test results


시험 성적서

- 시험장소명 : (주)성운이엔지의 디모빌리스
- 시험 방법 : IM240 연비 및 배기가스 시험용 주행 코스
- 시험 장비 : 액시동력계 및 배기가스 중앙분석기
- 시험 차량 : 2006년식 현대 투싼 2.0 CVT 2002년식
- 시험 기간 : 2006. 10. 13(금)
- 참고 사항 : 세공 완료 후 약 50km 주행 실시(차량 학습 주행)
- 시험 결과

측정항목	배기가스(g/km)			연비 (km/l)
	HC	CO	NOx	
정차 전	0.069	1.665	0.397	9.781
정차 후	0.008	0.569	0.241	10.528

- 결과분석 : 연비 7.6% 향상, 배기가스 일부 감소
- 기타 : IM240 속도모드 1주 일부

2006년 10월 13일
자동차 제어 및 진단기술 전문 교 육 보 고서

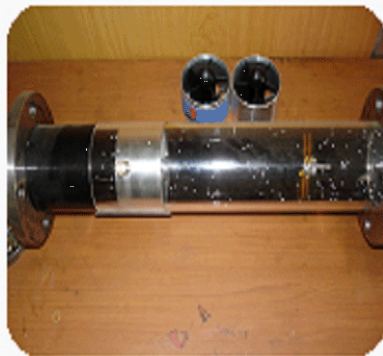

아주자동차대학
 AJOU MOTOR COLLEGE

△ Fuel efficiency test results (From Car Mania club)

* The result is a litter different car state

Car Name	Before Install	After Install	Increase
Ssangyoung Musso SUT	7.2 km/l	8.5 km/l	18.05 %
Hyundai Santafe CM	10.0 km/l	11.6 km/l	16.00 %
Kia New Carens	6.82 km/l	8.3 km/l	21.70 %
Samsung SM7	7.43 km/l	8.43 km/l	14.28 %

We do our best for the very careful quality control and producing



Vantilation Test



Heat Deforming Test



Temperature Gauge

△ Gasoline vehicle exhaust measurement results

	Kia Carnival		Hyundai Poter	
	Before	After	Before	After
Exhaust gas	27.1%	14.0%	29.1%	18.5%

△ LPG vehicle exhaust gas measurement results

	Hyundia Dynasty		Kia CARENS		Tolerance limit
	Before	After	Before	After	
CO	3.6%	0 %		0 %	3.4 %
HC	176 PPM	46 PPM		0 PPM	540 PPM
NOX	-	-		316 PPM	1,840 PPM

1. 차량번호: 1161-20001014-001

정밀검사결과표

2. 검사번호: 1161-20001014-001

3. 검사일자: 2006-09-27

4. 검사장소: 노원경찰서-동부출동 (인)

5. 검사대상차량: 2006-09-27

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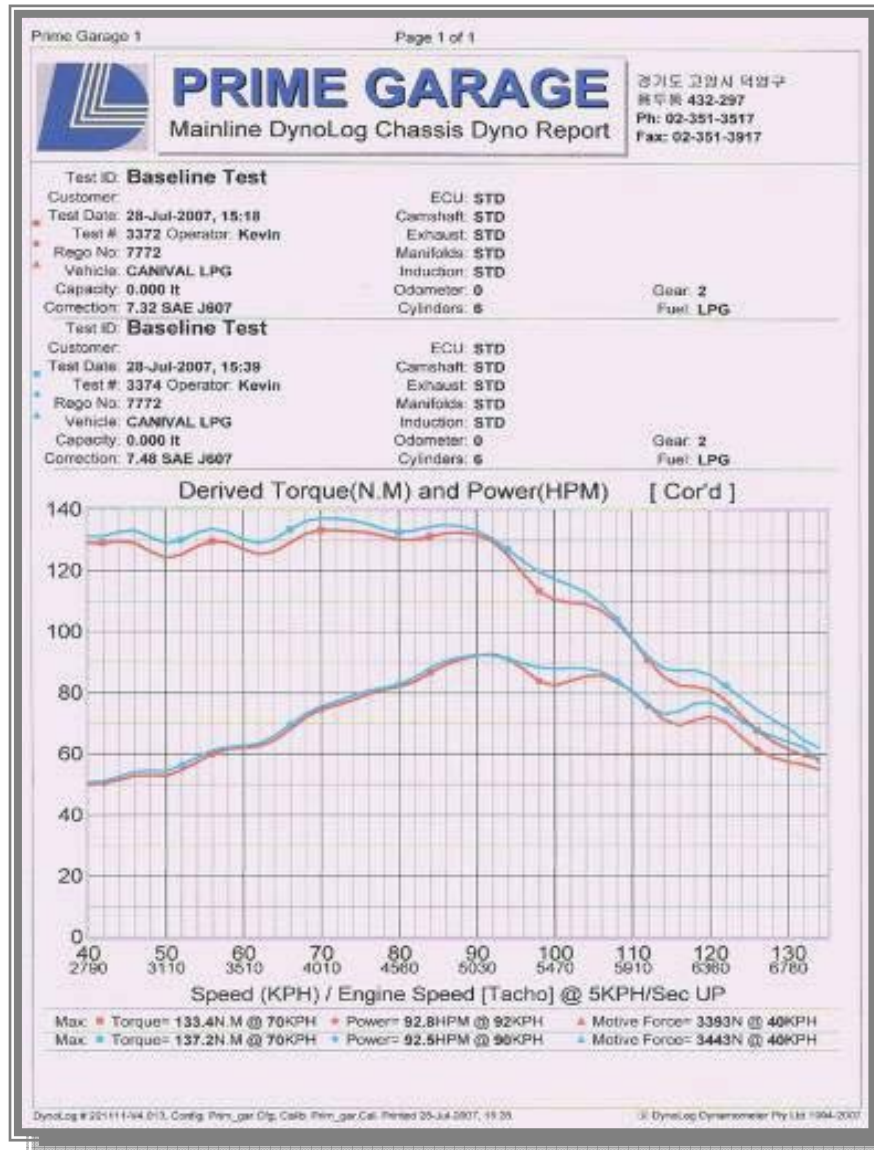
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Dyno Test

- Vehicle: Carnival LPG, Year 1999
- Test Condition: 100% open slot valve in 2nd Gear (Full acceleration)
- Test purpose: to confirm overload via analysis of loading variation before and after installation at maximum speed

[View Result Data]

- 1) **Graph in red** - Before installation; **graph in blue** - after installation
- 2) Upper graph illustrates torque comparison; lower graph illustrates wheel horse power
- 3) The resulting value of wheel horse power and torque that was enhanced after installation even at maximum speed and high load state disproves that e-nom can be a cause for power output reduction at high speeds. (Between 50km/h to 135km/h in second gear at full acceleration)

(Reference) Australian Dyno is a calibrator of output and torque, and unlike American dynamo jet, it is an apparatus that cannot measure if it is not consistent with full acceleration (opening position 100%) measurement conditions. There are only 4 available in Korea as a calibrator that cannot be intentionally tampered with, and if the same tool is used, identical values can be measured even if the person making the measurements and place of measurement is different.

Application for patent for the new product currently being distributed has been submitted and is in the process of review



Issuing by Korea NSK


1/2

주식회사 성훈 ENG 귀중 684,696 BEARING 수명검토결과 보고	기 고 070704 호 2007 年 7 月 12 日 한국 NSK 주식회사 산 기 기 술 협 호 정 기
---	--

1. 개요
 귀사의 구입반장 하실을 진심으로 기원합니다.
 국번 귀사로부터 626, 696, 684 베어링의 수명검토를 의뢰 받았습니디.
 이에 대해 베어링의 실검치로수명과 그리스수명의 계산 결과를 하기와 같이 보고 드립니다.

2. 대상 BEARING
 - 대상 일련: 626Z21M03E K E43L
 696Z21M04EU22T K E4M
 684A-A-1.L221M0-01 M NS7L

BEARINGS 일련	사용회전수 rpm	사용분도 (%)	검정항하중(kgf)	축방향하중(kgf)
626Z	10,000~30,000	100	1	1.3
696Z	10,000~40,000	100	1	1.3
684Z	10,000~30,000	100	1	1.5

3. 사용조건 및 계산결과

구분	회전수(rpm)	사용분도(%)	축방향하중(kgf)	구동회로수명 hr	그리스수명 hr
626	10,000	100	1	1,050,000	126,200
			3	57,800	121,900
			1	269,300	69,300
	20,000		3	28,900	65,200
			1	179,600	37,500
			3	19,300	34,900
696	10,000	100	1	257800	66,200
			3	29900	79,880
			1	128900	59,500
	20,000		3	14300	43,400
			1	85700	19,000
			3	8900	17,400
684	10,000	100	1	22600	13,200
			1.5	10860	12,300
			1	11300	9,150
	20,000		1.5	5400	8,500
			1	4950	3,100
			1.5	2200	2,760

Issuing by Korea car mania association




카매니아 인증서

제 2007-0507 호

영 역	회 사 명	연구소	사업자등록번호	114-06-37396
	주 소	주 소	주 소	주 소
시 회 분 석	제 품 명	검 수 일	수 용 일	2006-03-21 ~ 2006년 04월 30일
	자 료	참 조 문	참 조 문	참 조 문

- 테스트 개요 -
 1. 자동차동호인들의 차량을 대상으로 e-NOM(이능) 차량 전/후 테스트
 2. 앞쪽 전/후의 출력, 임피, 소음, 진동, 예언을 Report로 제출

- 테스트 결과 -
 1. 등속가속능력 향상
 2. 약력 응답성 향상
 3. 연비향상
 4. 예언감소
 5. 소음/진동 감소
 6. 테스트 결과 명판.

본 내용은 지리정보에서 제공한 차량에 대한 테스트결과로서 전체 차량의 대표성이 없으며, 자세한 결과 Report는 자동차동호회연합(<http://carmania.net>) 홈페이지에서 확인가능.



2007년 05월 07일

자동차동호회연합

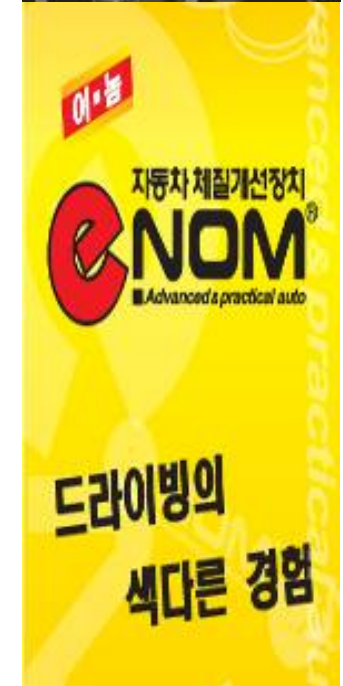
서울특별시 강동구 천호4동 312-26번지



* 위 권리에 의해 e-NOM(이능)을 카매니아 우수제품으로 인증하며
 본 인증서는 광고에 삽입 될 수 있으며 소용 및 기타 법적 요건으로는 사용할 수 없음. *



- 2007 Seoul Auto Salon with Auto After Korea – Launching participation
- 2007 KOF official sponsor
- Sponsor 2007 racing model billiard contest
- Internet Car Portal – Car Mania, Auto Club
- Advertisement and marketing in various media – Car life, Car n tech, Car In



Main Buyer Domestic and world wide



- Hyundai Motors blu-hands service
- SK Speedmate-auto network
- GS Caltex-Auto Oasis Network

- KIA MOTORS AUTO-Q SERVICE
- North America Market
- EURO Market





<Fishing Ship>



<SUV CAR>



<Big Bus Company>



<Heavy equipment>

All kind of internal-combustion engine



<Passenger Car>

<agricultural machinery >



<Cargo Truck>



- **Trend**

- Expansion of awareness as an alternative for reducing costs that result from skyrocketing world oil prices in addition to inflation
- Step up in owner's interest in vehicle management: Increase in possession of differentiated vehicle system and expansion of manias.

- **Social Foundation**

- Increase in vehicle ownership (Approximately 17,000,000 registered vehicles)
- Increase duration of ownership and vehicle's life through enhancement of vehicle performance and customer satisfaction (average 10 years)
- Strengthening of systems for energy saving and environmental protection

- **Market Condition**

- Dipolar division of the market: Emphasis on share such as large scale multi shop, online mall, TV home shopping
- Retrogressive atrophy of the market due to lack of items in small scale road shops and overheated competition
- Stringency of vehicle culture activities due to increase in indirect social expenses.

- **Target: Strategic approach**

- Customer: Owner with full leisure activities and vehicle cultural life.
- Specialty Stores: Need diversification of income structure and grafting of high value items
- Distribution network: Use accessibility to large scale shopping mall, marts, and potential shops.

- **Concept**

- Complementary equipment for enhancing power output through increased combustion efficiency and maintenance of performance
- Acceleration and induction of gas inflow for enhancement of combustion efficiency
- Reduction of fuel costs and correction of driving habits

- **Theme**

- Enhancement of power output and contributes to fuel cost reduction through improvement of vehicle condition
- Maintain the condition of a new vehicle, and renew the performance of old vehicle

- **Impression**

- Superior performance compared to similar products: vortex formation and stability
- Hydrodynamic structural design: Supplement output through the minimum high-speed absorbing resistance.



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